

What is claimed is:

1. A surface lighting device comprising:

a surface light source in which linear light sources having light-emitting elements, which corresponds to respective colors among combinations of plural colors at least including three primary colors of light, arranged in series are arranged in a predetermined order;

a reflection plate which is laid so as to fill spaces among the light-emitting elements constituting the linear light sources;

a substrate on which the surface light source and the reflection plate are set; and

a diffusion plate which is located above the surface light source and the reflection plate,

wherein non-light-emitting portions of the light emitting elements are covered by the reflection plate.

2. A surface lighting device comprising:

a surface light source in which linear light sources having light-emitting elements, which corresponds to respective colors among combinations of plural colors at least including three primary colors of light, arranged in series are arranged in a predetermined order and at a fixed interval;

a first reflection plate which is laid so as to fill spaces among the light-emitting elements constituting the linear light sources;

a second reflection plate having through-holes in which

light-emitting portions of the light-emitting elements can be fit;

a substrate on which the surface light source, the first reflection plate and the second reflection plate are set; and

a diffusion plate which is located above the surface light source, the first reflection plate and the second reflection plate,

wherein non-light-emitting portions of the light-emitting elements are covered by the second reflection plate.

3. A surface lighting device comprising:

a surface light source in which linear light sources having light-emitting elements, which corresponds to respective colors among combinations of plural colors including at least three primary colors of light, arranged in series are arranged in a predetermined order;

a reflection plate which is laid so as to fill spaces among the light-emitting elements constituting the linear light sources;

a substrate which has linear projected portions arranged at a fixed interval and on which the surface light source and the reflection plate are set; and

a diffusion plate which is located above the surface light source and the reflection plate,

wherein the linear light sources are arranged on slopes or sides of the linear projected portions arranged at the

fixed interval on the substrate, and

an irradiation angle, at which an amount of light of the light-emitting elements corresponding to at least one color among the plural colors is maximized according to the interval of the linear projected portions and an interval between the diffusion plate and the substrate, is set according to an angle of the slopes or the sides of the linear projected portions.

4. A surface lighting device comprising:

a surface light source in which linear light sources having light-emitting elements, which corresponds to respective colors among combinations of plural colors at least including three primary colors of light, arranged in series are arranged in a predetermined order and at a fixed interval;

light irradiation angle correcting means in light-emitting portions or on the light emitting portions of the light-emitting elements;

a reflection plate which is laid so as to fill spaces among the light-emitting elements constituting the linear light sources;

a substrate on which the linear light sources and the reflection plate are set; and

a diffusion plate which is located above the linear light sources and the reflection plate,

wherein an irradiation angle, at which an amount of light is maximized, is set by the light irradiation angle correcting means on the light-emitting portion of the linear light sources

corresponding to at least one color among the plural colors according to the interval of the linear light sources and an interval between the diffusion plate and the substrate.

5. A surface lighting device according to claim 3, wherein, in the case in which it is assumed that the interval for setting the linear light sources corresponding to one color is a fixed value L and an interval between the diffusion plate and a plane on which the linear light sources are set is a fixed value H , the irradiation angle, at which an amount of light of the linear light sources is maximized, is set such that a relation of $L \leq 2 \times H \times \tan(\text{irradiation angle at which an amount of light of the linear light sources is maximized})$ is satisfied.

6. A surface lighting device comprising:

a surface light source in which light-emitting element groups having three light-emitting elements, which correspond to three primary colors of light, arranged to be contiguous with vertexes of a triangle are arranged in a matrix shape;

a substrate on which the light-emitting element groups are arranged; and

a diffusion plate which is located above the surface light source,

wherein the light-emitting element groups are arranged to be deviated every other column or row such that a positional relation among the light-emitting element groups is a delta shape, and

a row interval, a column interval, and an arrangement angle of the light-emitting element groups are adjusted such that, when it is assumed that an average sum of amounts of light calculated from a sum of amounts of light of the single color light-emitting elements is 100%, a sum of amounts of light of the respective single color light-emitting elements at a center of gravity of the delta shape and a center of gravity of a diamond shape formed by two delta shapes is between 75% and 125%.

7. A surface lighting device comprising:

linear light sources in which light-emitting element groups having three light-emitting elements, which correspond to three primary colors of light, are arranged in series to be contiguous with each other;

light irradiation angle correcting means in light-emitting portions or on the light emitting portions of the light-emitting elements;

a substrate on which the light-emitting element groups are arranged; and

a diffusion plate which is located above the surface light source,

wherein the linear light sources are arranged in plural columns to form a surface light source, and

a maximum irradiation angle of the light-emitting elements is corrected such that a point where a maximum irradiation direction of the light-emitting elements, which is corrected by the light irradiation angle correcting means

in the light-emitting portions or on the light-emitting portions of the light-emitting elements constituting the linear light source of attention, and the diffusion plate cross with each other goes beyond a middle point of the linear light source adjacent to the linear light source of attention.

8. A liquid crystal display device comprising:
a surface lighting device according to claim 1; and
a liquid crystal display panel.